International Journal of
Recent Innovations in Medicine and Clinical Research
Open Access, Peer Reviewed, Abstracted and Indexed Journal

ISSN: 2582-1075
https://ijrimcr.com/
Volume-4, Issue-3, 2022: 68-78

Research Article

A Study to Assess the Effectiveness of Fenugreek Seeds Powder among Nursing Students of Selected Colleges, Bangalore

Arpita Mandal[1], Laishram Dabashini Devi[2]

Author Affiliations
[1]Arpita Mandal, Staff Nurse, Norman Bethune Hospital, Kolkata.
[2]Dr. Laishram Dabashini Devi, Professor, Global College of Nursing, Bangalore
Corresponding Author Email: roshini999.bk@gmail.com

Received: June 30, 2022 **Accepted:** July 28, 2022 **Published:** August 15, 2022

Abstract: Dysmenorrhea is the most common gynecological complaint among young women, with prevalence between 43% and 93%. According to symptoms intensity, it is also major cause for school or work absenteeism.[1] This study intends to assess the effectiveness of fenugreek seeds powder on dysmenorrhea pain among nursing students in selected nursing college, with an objective to assess the level of dysmenorrhea pain, evaluate the effectiveness of fenugreek seed powder on dysmenorrhea pain and to associate among nursing students. The research design was quasi experimental design with pretest-posttest having non-equivalent control group. The study was conducted in Global College of nursing. The subjects were selected by random number table. The data was collected through socio-demographic datasheet, clinical Proforma, checklist of dysmenorrhea pain and intervention package. The experimental group had mean value of 5.23 with standard deviation of 2.03 whereas the mean value of control group was 4.63 with standard deviation of 2.34 for assessing the level of dysmenorrhea pain. The experimental group had mean value of 2.17 with standard deviation of 1.58 whereas the mean value of control group was 4.60 with standard deviation of 2.30 for assessing the effectiveness of fenugreek seeds powder on the level of dysmenorrhea pain. This indicates that there is significant reduction in pain for experimental group and no significant reduction in pain for control group. Fenugreek seeds powder is effective method for treating dysmenorrhea. It is non-pharmacological, cost effective, and having no side effects. It helps the nursing students to lead their menstrual cycle in a harmonious way and avoid unnecessary leave during menstruation every month.
Keywords: Dysmenorrhea, fenugreek seeds powder, nursing students.

Introduction

Dysmenorrhea hinders the quality of life and productivity of 60% to 90% of females. Most women in Western countries rely on non-steroidal anti-inflammatory drugs to manage their period pain.[2] Fenugreek grows in many parts of the world, including southern Europe, western Asia, India, northern Africa, and the United states.

In India, fenugreek's leaves are widely consumed as a leafy green vegetable, while the seeds are a popular condiment used to prepare seasonings, pickles, and curry powders. The women who received fenugreek experienced a 67% reduction in lower abdominal pain. Authors concluded that fenugreek seed is "efficacious, safe, cost-effective, and well tolerated.[3] These data suggest that prescription of fenugreek seed powder during menstruation can reduce the severity of dysmenorrhea.[4]

Materials and Methods

A quantitative research approach was used for the present study. For the present study quasi experimental design with pre-test–post-test having non-equivalent control group was used. The researcher selected Global College of nursing, Bengaluru as the setting for the present study. The researcher had selected this area to conduct research study because of feasibility during this pandemic. Population for the present study comprises of all girls who were studying in nursing programme, Bengaluru. The sample for the present study subjects selected from Global College of nursing, Bengaluru who fulfill the inclusion criteria of this study. The sample size for the present study consists of 60 subjects. In this study, Random Number Table was used for selecting the subjects from the sample frame.

Part A: Socio–demographic datasheet: Consists of items such as age, religion, residence, type of family, mother's education, father's education, occupation of father, occupation of mother, monthly income of the parents, food habits and extracurricular activities.

Part B: Clinical profile Proforma: Consist for items such as family history of dysmenorrhea, age at menarche, time interval between two menstrual cycle, and duration of menstrual flow, menstrual bleeding, menstrual cycles, last menstrual period, measures during pain and frequency of pain assessment.

Part C: Checklist for dysmenorrhea pain: Consists of 8 structured points which gives information of dysmenorrhea pain, menstrual regularity, physical illness other than menstrual pain.

Part D: Visual analogue scale: Consist of 10 markings on the scale. The total score is 10. The highest score on the Visual Analogue Scale correlates with the severity of pain.
Scoring and its interpretation
(0)- No pain
(1-3)- Mild pain
(4-6)-Moderate pain
(7-9)-Severe pain
(10)-Unbearable pain

Part E: Intervention package: Consist of definition of dysmenorrhea, types, causes and signs and symptoms, venue of the intervention, and procedure of the intervention.

Data Collection Procedure

Stage 1: Taken permission from head of the institution to conduct study.
Stage 2: Obtained Research Review Board clearance.
Stage 3: Assembled the identified subjects in a classroom.
Stage 4: Spotted out the subjects who meet the sampling criteria.
Stage 5: Used Random method and randomly selects the first set of 30 subjects for control group and the next set of 30 subjects for experimental group.
Stage 6: Collected the informed consent from control group and experimental group to participate in the study.
Stage 7: Administered the socio-demographic data sheet, clinical profile proforma, checklist for dysmenorrhea pain and collects pre interventional data from control group and experimental group.
Stage 8: Researcher distributed the Visual Analogue Scale and request subjects to rate the level of pain with brief introduction of Visual Analogue Scale, way of marking and scoring.
Stage 9: Researcher demonstrates the procedure of taking 1800-2700 mg of fenugreek seed powder three times daily for the first 3 days of a menstrual period followed by 900 mg three times daily for the remainder of one menstrual cycle.
Stage 10: Researcher administered the posttest by asking the subjects in the control group to rate their pain level in Visual Analogue Scale after 30 days.

Stage 11: Researcher administered the posttest by asking the subjects in the experimental group to rate their pain level in Visual Analogue Scale after 30 days of receiving fenugreek seeds powder and submits the filled in scale.

Results

Table 1. Frequency and Percentage Distributions of Nursing Students According to Age (N=60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Age	21-25 years	20	66.7	22	73.0
	26-30 years	10	33.3	8	27.0

Table 1 revealed that, in the experimental group 20(66.7%) were in the age of 21-25 years, 10(33.3%) were in the age of 26-30 years. In the control group 22(73.3%) were in the age of 21-25 years, 8(27%) were in the age of 26-30 years.

Table 2. Frequency and Percentage Distributions of Nursing Students According to Religion (N=60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Religion	Hindu	27	90.0	24	80.0
	Muslim	3	10.0	6	20.0

Table 2 revealed that according to religion, experimental group had 27(90%) as Hindu and 3(10.0%) as Muslim whereas in the control group 24(80.0%) were Hindu and 6 (20.0%) were Muslim.

Table 3. Frequency and Percentage Distributions of Nursing students according to Residence (N=60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Residence	Urban	26	86.7	29	96.7
	Rural	4	13.3	1	3.3

Table 3 revealed that from the 60 subjects, experimental group had 26(86.7%) who lived in the urban areas and 4(13.3%) who lived in the rural areas whereas control group had 29(96.7%) who lived in the urban areas and 1(3.3%) who lived in the rural area.

Table 4. Frequency and Percentage Distributions of Nursing students According to the Type of Family (N=60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Type of family	Joint	2	6.7	5	16.7
	Extended	0	0.0	4	13.3
	Nuclear	28	93.3	21	70.0

Table 4 revealed that according to type of family, experimental group had 28(93.3%) who lived in the nuclear family whereas 2(6.7%) who lived in the joint family. Control group had 21(70.0%) who lived in the nuclear family, 5(16.7%) who lived in the joint family and 4(13.3%) who lived in the extended family.

Table 5. Frequency and Percentage Distributions of Nursing students According to Mothers' Education (N=60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Mothers' education	Primary	5	16.7	4	13.3
	Secondary	8	26.6	9	30.0
	High school	7	23.3	6	20.0
	PUC	5	16.7	4	13.3
	Degree	2	6.7	5	16.7
	Post graduate	3	10.0	2	6.7

Table 5 revealed that out of 60 subjects, experimental group had 8(26.6%) secondary education, 7(23.3%) high school education, 5(16.7%) primary education, 5(16.7%) PUC education, 3(10.0%) post-graduation and 2(6.7%) were degree holders.

Control group had 3(30.0%) secondary education, 6(20.0%) high school education, 5(16.7%) were degree holders, 4(13.3%) primary education, 4(13.3%) PUC education and 2(6.7%) were post graduate.

Table 6. Frequency and Percentage Distributions of Nursing students According to Fathers' Education (N=60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Fathers' education	Primary	5	16.7	4	13.3
	Secondary	6	20.0	5	16.7
	High school	5	16.7	9	30.0
	PUC	2	6.7	4	13.3
	Degree	6	20.0	7	23.4
	Post graduate	6	20.0	1	3.3

Table 6 revealed that out of 60 subjects, experimental group had 6(20.0%) secondary education as well as degree holders and post graduate, 5(16.7%) primary education and high school education, 2(6.7%) PUC education.

Control group had 9(30.0%) high school education, 7(23.4%) were degree holders, 5(16.7) secondary education, 4(13.3%) primary and PUC education whereas 1(3.3%) had post-graduation.

Table 7. Frequency and Percentage Distributions of Nursing students According to Mothers' Occupation (N=60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Occupation of Mother	Home makers	18	60.0	20	66.7
	Business	2	6.7	1	3.3
	Private	4	13.3	4	13.3
	Self employed	2	6.7	2	6.7
	Others	4	13.3	3	10.0

Table 7 revealed that, in the experimental group 18(60.0%) were homemakers, 4(13.3%) had private and other occupation, 2(6.7%) were business and self-employed workers. In the control group, 20(66.7%) were homemakers, 4(13.3%) were private workers, 3(10%) had other occupation and 2(6.7%) were self-employed workers.

Table 8. Frequency and percentage Distributions of Nursing students According to Father's Occupation (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Occupation of Fathers'	Business	12	40.0	10	33.3
	Private	2	6.7	4	13.3
	Government	6	20.0	3	10.0
	Self employed	4	13.3	8	26.7
	Others	6	20.0	5	16.7

Table 8 revealed that out of 60 subjects, experimental group had 12(40.0%) business men, 6(20.0%) government employers and other occupation, 4(13.3%) were self-employed workers and 2(6.7%) were private workers.

Control group had 10(33.3%) business men, 8(26.7%) were self-employed workers, 5(16.7%) were other workers, 4(13.3%) were private workers and 3(10.0%) were government employer's.

Table 9. Frequency and Percentage Distributions of Nursing Students According to Their Parent's Monthly Income (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Parent's Monthly Income	< Rs.25,000	10	33.3	8	26.7
	Rs.25,000-50,000	14	46.7	14	46.7
	> Rs.50,000	6	20.0	7	26.7

Table 9 revealed that, the total parents' monthly income in the experimental group were 14(46.7%) between Rs.25,000-50,000, 10(33.3%) less than Rs. 25,000 and more 6(20.0%) more than 50,000. In the control group 14(46.7%) were between Rs.25,000-50,000, 8(26.7%) were less than Rs. 25,000 and 7(26.7%) more than 50,000.

Table 10. Frequency and Percentage Distributions of Nursing students According to Food Habits (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Food habit	Vegetarian	3	10.0	4	13.4
	Non-vegetarian	10	33.3	13	43.3
	Mixed diet	17	56.7	13	43.3

Table 10 revealed that out of 60 subjects, experimental group had 17(56.7%) are having mixed diet, 10(33.3%) non-vegetarian and 3(10.0%) vegetarian. Control group had 13 (43.3%) non-vegetarian and mixed diet whereas 4(13.4%) are vegetarian.

Table 11. Frequency and Percentage Distributions of Nursing students According to Extracurricular Activities (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Extracurricular activities	Sports	12	40.0	8	26.7
	Dance	11	36.7	11	36.7
	Others	24	66.7	14	46.7

Table 11 revealed that, experimental group had 24(66.7%) in the other activities, 12(40.0%) in the sports group and 11(36.7%) in the dance group. Control group had 14(46.7%) in other activities, 11(36.6%) in the dance group whereas 8(26.7%) in the sports group.

Table 12. Frequency and Percentage Distributions of Nursing students According to Family History of Dysmenorrhea (N=60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Family history of Dysmenorrhea	Yes	17	56.7	6	20.0
	No	13	43.3	24	80.0
	No response	13	43.3	24	80.0

Table 12 revealed that out of 60 subjects, experimental group had 17(56.7%) family history of dysmenorrhea, whereas 13(43.3%) did not have the family history of dysmenorrhea. Control group had 24(80.0%) family history of dysmenorrhea and 6(20.0%) did not have the family history of dysmenorrhea.

Table 13. Frequency and Percentage Distributions of Nursing students According to Relationship of Family Member with the History of Dysmenorrhea (N=60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Relationship of family member	Mother	13	43.3	5	16.7
	Sister	4	13.3	1	3.3
	No response	13	43.3	24	80.0

Table 13 revealed that out of 60 subjects, experimental group had 13(43.3%) mothers of subjects with history of dysmenorrhea, and 13(43.3%) did not have any family member with history of dysmenorrhea, 4 (13.3%) sisters with the history of dysmenorrhea. In control group 24(80.0%) did not have any family member with history of dysmenorrhea. 5(16.7%) had mothers with the history of dysmenorrhea and 1(3.3%) had sisters of subjects with history of dysmenorrhea.

Table 14. Frequency and Percentage Distributions of Nursing students According to Age at Menarche (N=60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Age at menarche	11-12 years	13	43.3	9	30.0
	13-15 years	17	56.7	21	70.0

Table 14 revealed related to age at menarche, experimental group had 17(56.7%) in the age group of 13-15 years where as 13(43.3%) in the age group of 11-12 years of age. Control group had 21(70%) in the age group of 13-15 years and 9(30.0%) in the age group of 11-12 years.

Table 15. Frequency and Percentage Distributions of Nursing students According to Time Interval between Two Menstrual Cycles (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Time interval between two menstrual cycles	< 28 days	5	16.7	4	13.3
	28-30 days	18	60.0	17	56.7
	> 30 days	7	23.3	8	26.7

Table 15 revealed the time interval between two menstrual cycles. Experimental group had 18(60.0%) with menstrual cycles between 28-30 days, 7(23.3%) with menstrual cycles more than 30 days and 5(16.7%) less than 28 days.

Control group had 17(56.7%) with menstrual cycles between 28-30 day, 8(26.7%) with menstrual cycle more than 30 days and 4(13.3%) with menstrual cycle less than 28 days.

Table 16. Frequency and Percentage Distributions of Nursing students According to Duration of Menstrual Flow (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Duration of Menstrual flow	< 3 days	1	3.3	4	13.3
	3-5 days	20	66.7	22	73.3
	6-7 days	9	30.0	4	13.3

Table 16 revealed that out of 60 subjects, experimental group had 20(66.7%) with 3-5 days of menstrual flow, 9(30.0%) with 6-7 days of menstrual flow and 1(3.3%) with less than 3 days. Control group had 22(73.3%) with 3-5 days of menstrual flow and 4(13.3%) with 6-7 days and less than 3 days.

Table 17. Frequency and Percentage Distributions of Nursing students According to Menstrual Bleeding (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Menstrual bleeding	Mild	2	6.7	8	26.7
	Moderate	24	80.0	21	70.0
	Severe	4	13.3	1	3.3

Table 17 revealed about menstrual bleeding. Experimental group had 24(80.0%) with moderate bleeding, 4(13.3%) with severe bleeding and 2(6.7%) with mild bleeding. Control group had 21(70.0%) with moderate bleeding, 8(26.6%) with mild bleeding and 1(3.3%) with severe bleeding.

Table 18. Frequency and Percentage Distributions of Nursing students According to Menstrual Cycle (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Menstrual cycle	Regular	30	100.0	30	100.0
	Irregular	0	0.0	0	0.0

Table 18 revealed that out of 60 subjects, experimental group had 30(100%) with regular menstrual cycle and control group had 30(100%) with regular menstrual cycle.

Table 19. Frequency and Percentage Distributions of Nursing students According to Duration of Pain Assessment (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Duration of pain assessment	Daily	2	6.7	8	26.7
	Often	12	40.0	11	36.7
	Rarely	16	53.3	11	36.7

Table 19 revealed the duration of pain assessment. Experimental group had 16(53.3%) assessed rarely, 12(40.0%) assessed often and 2(6.7%) assessed every day. In control group 11(36.7%) assessed pain often and rarely whereas 8(26.7%) assess every day.

Table 20. Frequency and Percentage Distributions of Nursing students According Perception of Pain (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Have menstrual pain	Yes	30	100.0	30	100.0
	No	0	0.0	0	0.0

Table 20 revealed that out of 60 subjects, experimental group had 30(100.0%) with menstrual pain and control group had 30(100.0%) with menstrual pain.

Table 21. Frequency and Percentage Distributions of Nursing students According to Perception of Different Levels of Menstrual Pain (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Have different levels on menstrual pain	Yes	30	100.0	30	100.0
	No	0	0.0	0	0.0

Table 21 revealed that out of 60 subjects, experimental group had 30(100.0%) with the perception of different levels on menstrual pain and control group had 30(100.0%) with the perception of different levels on menstrual pain.

Table 22. Frequency and Percentage Distributions of Nursing students According to Different Levels of Menstrual Pain (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Different levels of menstrual pain	Mild	6	20.0	15	50.0
	Moderate	16	53.3	8	26.7
	Severe	8	26.7	7	23.3

Table 22 revealed different levels of menstrual pain, experimental group had 16(53.3%) with moderate pain, 8(26.7%) with severe pain and 6(20.0%) with mild pain. Control group had 15(50.0%) with mild pain, 8(26.7%) with moderate pain and 7(23.3%) with severe pain.

Table 23. Frequency and Percentage Distributions of Nursing students According to Physical illness Other than Menstrual Pain (N= 60)

Characteristics	Category	Respondents			
		Experimental (n=30)		Control (n=30)	
		f	%	f	%
Physical illness other than menstrual pain	Yes	0	0.0	0	0.0
	No	30	100.0	30	100.0

Table 23 revealed that out of 60 subjects, experimental group had 30(100.0%) with no physical illness other than menstrual pain and control group had 30(100.0%) are having no physical illness other than menstrual pain.

Table 24. Assessment of Respondent in Pre-test Dysmenorrhea Pain Level of Experimental Group and Control Group (N=60)

Aspects	Sample (n)	Max. Score	Range	Pain Score			
				Mean	SD	Mean (%)	SD (%)
Experimental	30	10	2-8	5.23	2.03	52.3	20.3
Control	30	10	2-8	4.63	2.34	46.3	23.4

Table 24 revealed that range was ranged from 2-8, with mean of 5.23, standard deviation 2.03 and mean percentage was 52.3 for experimental group. For control group range was ranged from 2-8, with mean 4.63, standard deviation 2.34 and mean percentage was 46.3.

Table 25. Assessment of Respondent in Post-test Dysmenorrhea Pain Level of Experimental and Control group (N=60)

Aspects	Sample (n)	Max. Score	Range	Pain Score			
				Mean	SD	Mean (%)	SD (%)
Experimental	30	10	0-5	2.17	1.58	21.7	15.8
Control	30	10	2-8	4.60	2.30	46.0	23.0

Table 25 revealed that range was ranged from 0-5, with mean of 2.17, standard deviation 1.58 and mean percentage was 21.7 for experimental group. For control group range was ranged from 2-8, with mean of 4.60, standard deviation 2.30 and mean percentage was 46.0.

Table 26. The Outcome of Paired 't' Test for Pre-test and Post-test in Experimental Group (N=60)

Aspects	Max. Score	Pain Scores				Paired 't' Test
		Mean	SD	Mean (%)	SD (%)	
Pre test	10	5.23	2.03	52.3	20.3	9.10*
Post test	10	2.17	1.58	21.7	15.8	
*Significant at 5% level, t (0.05, 29df) = 2.045						

The table 26 revealed that there was significant difference between pre-test and post test scores with paired 't' test value of 9.10 which is higher than the book value 2.045 showing at the level of $p<0.05$. Since there was a significant reduction in the dysmenorrhea pain of subjects after taking fenugreek seed powder at the level of $p<0.05$.

Hence H_1 was retained which stated that there was a significant difference between pre-test and post test scores of control group at the level of $p<0.05$ as well as H_2 was retained which stated that there is a significant reduction in the dysmenorrhea pain of subjects after receiving fenugreek seeds powder at the level of $p< 0.05$.

Table 27. The Outcome of Paired 't' Test for Pre-test and Post-test in Control Group (N=60)

Aspects	Max. Score	Pain Scores				Paired 't' Test
		Mean	SD	Mean (%)	SD (%)	
Pre test	10	4.63	2.34	46.3	23.4	0.91 NS
Post test	10	4.60	2.30	46.0	23.0	
NS: Non-Significant, t (0.05, 29df) = 2.045						

Table 27 showed that there is no significance difference at 5% level (i.e. <0.05) in control group. Although the mean value difference of pre and post-test is not statistically significant with the p value. There was no adequate statistically evidence to reject the hypotheses. Hence the hypothesis H_1 was retained which stated that there was a significant difference between pre-test and post test scores of control group at the level of $p<0.05$.

Table 28. Association Between the Pre-test Scores of Dysmenorrhea pain in Both Experimental and Control Group with Age, Religion, Residence, Type of Family (N=60)

Demographic Variables	Category	Sample	Pain Level						χ^2 Value
			Mild		Moderate		Severe		
			N	%	N	%	N	%	
Age	21-25 yrs	42	11	26.1	11	26.1	20	47.6	0.45 NS
	26-30 yrs	18	1	5.5	9	50.0	8	44.5	
Religion	Hindu	51	20	39.2	22	43.1	9	17.7	9.92*
	Muslim	9	1	11.1	2	22.2	6	66.7	
Residence	Urban	55	19	34.5	21	38.2	15	27.3	1.95 NS
	Rural	5	2	40.0	3	60.0	0	0.0	
Type of family	Joint	7	2	28.6	4	57.1	1	14.3	2.66 NS
	Extended	4	2	50.0	2	50.0	0	0.0	
	Nuclear	49	17	34.7	18	36.7	14	28.6	
*Significant at 5% Level, NS: Non-significant									

Table 28 revealed that there was a significant association between pre-test scores of experimental and control group with religion whereas there was no significant association between pre-test scores of experimental and control group with age, residence, type of family. Hence H_3 was retained which stated that there is a significant association between the pre–test visual analogue score and the selected socio-demographic variables of both experimental and control group at $p < 0.05$.

Table 29. Association Between the Pre-test Scores of Dysmenorrhea pain in Both Experimental and Control Group with Mothers' Education, Fathers' Education, Occupation of Father, Occupation of Mother, Family Monthly Income, and Food Habits (N=60)

Demographic Variables	Category	Sample	Pain Level						χ^2 Value
			Mild		Moderate		Severe		
			N	%	N	%	N	%	
Mother education	Primary	9	3	33.3	4	44.5	2	22.2	5.01 NS
	Secondary	17	7	41.2	6	35.3	4	23.5	
	High school	13	6	46.1	4	30.8	3	23.1	
	PUC	9	2	22.2	4	44.5	3	33.3	
	Degree	7	3	42.9	3	42.9	1	14.2	
	Post graduate	5	0	0.0	3	60.0	2	40.0	
Father education	Primary	9	4	44.5	3	33.3	2	22.2	8.90 NS
	Secondary	11	3	27.3	3	27.3	5	45.4	
	High school	14	5	35.7	5	35.7	4	28.6	
	PUC	6	4	66.7	2	33.3	0	0.0	
	Degree	13	3	23.1	8	61.5	2	15.4	
	Post graduate	7	2	28.6	3	42.8	2	28.6	
Occupation of Father	Business	22	6	27.3	9	40.9	7	31.8	3.84 NS
	Private	6	1	16.7	3	50.0	2	33.3	
	Government	9	3	33.3	4	44.5	2	22.2	
	Self employed	12	6	50.0	4	33.3	2	16.7	
	Others	11	5	45.4	4	36.4	2	18.2	
Occupation of Mother	Home makers	38	13	34.2	13	34.2	12	31.6	7.90 NS
	Business	3	0	0.0	2	66.7	1	33.3	
	Private	8	2	25.0	5	62.5	1	12.5	
	Self employed	4	3	75.0	1	25.0	0	0.0	
	Others	7	3	42.9	3	42.9	1	14.2	
Family income/month	< Rs.25,000	18	9	50.0	8	44.4	1	5.6	12.20*
	Rs.25,001-50,000	28	9	32.1	13	46.4	6	21.4	
	> Rs.50,000	14	3	21.4	3	21.4	8	57.2	
Food habit	Vegetarian	7	0	0.0	2	28.6	5	71.4	11.18*
	Non-vegetarian	23	9	39.1	8	34.8	6	26.1	
	Mixed diet	30	12	40.0	14	46.7	4	13.3	
*Significant at 5% Level, NS: Non-significant									

Table 29 revealed that there was a significant association between pre-test scores of experimental and control group with family monthly income and food habits whereas there was no significant association between pre-test scores of experimental and control group with mother's education, fathers education, occupation of father and occupation of mother. Hence H_3 was retained which stated that there is a significant association between the pre-test visual analogue score and the selected socio-demographic variables of both experimental and control group at $p < 0.05$.

Table 30. Association Between the Pre-test Scores of Dysmenorrhea pain in Both Experimental and Control Group with Family History of Dysmenorrhea, Menstrual Bleeding and Pain Assessment (N=60)

Demographic Variables	Category	Sample	Pain Level						χ^2 Value
			Mild		Moderate		Severe		
			N	%	N	%	N	%	
Family history of dysmenorrhea	Yes	23	4	17.4	9	39.1	10	43.5	8.41*
	No	37	17	46.0	15	40.5	5	13.5	
Menstrual bleeding	Mild	10	6	60.0	1	10.0	3	30.0	14.30*
	Moderate	45	15	33.3	22	48.9	8	17.8	
	Severe	5	0	0.0	1	20.0	4	80.0	
Pain assessment	Daily	10	3	30.0	4	40.0	3	30.0	13.81*
	Often	23	7	30.4	5	21.8	11	47.8	
	Rarely	27	11	40.7	15	55.6	1	3.7	

Table 30 revealed that there was a significant association between pre-test scores of experimental and control group with family history of dysmenorrhea, menstrual bleeding and pain assessment.

Conclusion

The study implies the need for clinical nurse to keep abreast with the knowledge by undergoing continuing education, in-service education and training to upgrade knowledge.

Conflicts of interest: There is no conflict of interest of any kind.

References

1. Marlow DR, Redding BA. Marlow's textbook of pediatric Nursing. 6th ed. New Delhi, Reed Elsevier India Private limited; 2013:928.
2. Bahrami A, Sadeghnia H, Avan A, Mirmousavi SJ, Moslem A, Eslami S, Heshmati M, Bahrami-Taghanaki H, Ferns GA, Ghayour-Mobarhan M. Neuropsychological function in relation to dysmenorrhea in adolescents. Euro J Obst Gynecol Reprod Biol. 2017;215:224-9.
3. Elizabeth M. Midwifery for Nurses. 2nd ed. New Delhi, CBS Publishers and distributors Private Limited; 2013:33.
4. Konar H. DC Dutta's Textbook of Midwifery and Gynecological Nursing. 4th ed. New Delhi, Jaypee Brothers Publishers; 2015:146-147.

Citation: Mandal A, Devi LD. A Study to Assess the Effectiveness of Fenugreek Seeds Powder among Nursing Students of Selected Colleges, Bangalore. Int J Rec Innov Med Clin Res. 2022;4(3):68-78.